DOCUMENT RESUME

ED 054 737 HE 002 539

AUTHOR Eurich, Nell; Schwenkmeyer, Barry

TITLE Great Britain's Open University: First Chance, Second Chance, or Last Chance?

INSTITUTION Academy for Educational Development, Inc., New York, N.Y.

PUB DATE Aug 71

NOTE 38p.

EDRS PRICE MF-$0.65 HC-$3.29

DESCRIPTORS *Adult Education; Equal Education; *Foreign Countries; *Higher Education; Innovation; *Open Enrollment; Organization; *Universities

IDENTIFIERS *Open University Great Britain

ABSTRACT

Great Britain's Open University, through a unique blend of television, radio, correspondence courses, and local study centers, proposes to offer any adult seeking higher education the chance to earn a degree equal in quality to those from the best British universities, and at a cost to the nation and the student far below standard forms of instruction. This report discusses: (1) the creation of the Open University; (2) how it functions, in terms of admission requirements (one has to be at least 21), degrees, governance, organization and staff, and grading; (3) the planning of course methods and materials; (4) the development of foundation courses in mathematics, science, social sciences and the humanities; (5) the University's finances in terms of costs to students and costs to the nation; (6) the composition of the student body; and (7) the effect of the Open University on higher education in Great Britain. (AF)

ED054737

Nell Eurich
and
Barry Schwenkmeyer

Great Britain's Open University: First Chance, Second Chance, or Last Chance?

Academy for Educational Development Paper Number Five

HE002 539

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

The Academy papers are published by the Academy for Educational Development, Inc., a nonprofit, tax-exempt planning organization. The Academy assists schools, colleges, universities, governmental agencies and other organizations with the development of their plans for the future and with the improvement of their operations and programs.

Other papers in this series:

Agenda for the Colleges and Universities, *by John W. Gardner*

Educational Opportunity and Political Realities, *by Frank Bowles*

Higher Education in a Time of Accelerating Change, *by Arnold Toynbee**

Educators Don't Know What Education Should Do, *by Billy O. Wireman**

*Single copies are available from the Academy's New York office at 437 Madison Avenue, New York, New York 10022.

This report was made possible through a grant from IBM in support of the Academy's efforts to establish an International University for Independent Study.

Permission to reproduce all or portions of this paper, with the proper attribution, is freely granted. Copyright © Academy for Educational Development, Inc., August 1971.

Nell Eurich
and
Barry Schwenkmeyer

Great Britain's Open University: First Chance, Second Chance, or Last Chance?

Academy for Educational Development Paper Number Five

NELL EURICH, Dean of the Faculty at Manhattanville College, has examined the Open University as a teacher and administrator with a deep commitment to liberal studies, and a special interest in the application of technology to the improvement of higher education. Dr. Eurich was formerly Dean of the Faculty and Professor of English at Vassar, and a member of the United States Commission on Instructional Technology.

BARRY SCHWENKMEYER, Assistant to the President of the Academy for Educational Development, has carried out numerous research assignments in higher education. He is a former teacher and administrator in adult education programs overseas.

Table of Contents

Introduction 1
The Beginning 3
How It Works 5
- Admissions 5
- Degrees 5
- Governance 7
- Organization and Staff 9
- Grading 14

Methods and Materials 15
Foundation Courses 17
- Mathematics 17
- Science 18
- Social Sciences 20
- Humanities 20

Finances 22
- Costs to the Student 23
- Costs to the Nation 24

Student Body 25
The Open in the British System 27

ACKNOWLEDGMENTS

The authors would like to thank all those from the Open University who took time from busy schedules to talk about their plans and operations, and to review a draft of this paper: Walter Perry, Vice-Chancellor; John Ferguson, Dean and Director of Studies in the Faculty of Arts; and Sir Brynmor Jones, Vice-Chancellor at the University of Hull, who sat on both the Planning and Advisory Committees of the Open University, and is now a member of its governing Council.

Thanks also go to those who helped the authors place the Open in the context of British higher education: F.R. Hornby, Chief Officer of the Council for National Academic Awards; P.F. Vowles, External Registrar, University of London; and S.P. Whitley, Assistant Secretary, Universities Branch, Department of Education and Science.

Further avenues of inquiry emerged in conversations with Sir John Wolfenden, Director of the British Museum and formerly Chairman of the University Grants Committee; and Lord Evans, formerly Provost, University College, London.

Introduction

When America accepted a policy of open admission to higher education for all who wish it, universities found themselves with extended commitments at the very time when budgets were being slashed and the quality of the education offered was itself being called to account. Obviously, cost-effective and high-quality education cannot be guaranteed for all by simply providing more of what now exists. Traditional classroom instruction is too expensive and too inflexible to remain the only available avenue for post-secondary education. The times require new ways to take education to the student, rather than bringing the student to college.

American educators have tried out a number of departures. Some, like correspondence study, have been around for a long time; others such as radio, television, and computer-aided learning, were born of the revolution in modern communications. However, the decentralized American system of higher education has discouraged experimentation on a scale sufficiently large to test out both the educational and financial advantages claimed by the innovators. Efforts to date have been fragmentary and inconclusive—too limited to yield economies of scale, too under financed to achieve quality, and too isolated from the higher-education mainstream to serve as a real alternative to traditional instruction.

At this moment, external and non-traditional programs are being studied, proposed and launched as trial balloons in this country.* American educators are keeping a sharp eye on Great Britain where, in January of 1971, a nationally supported educational innovation funded at up to $14.9 million and with an initial enrollment of 25,000 students commenced operations. The Open University – through a unique blend of television, radio, correspondence instruction, and local study centers – proposes to offer any adult seeking higher education the chance to earn a degree equal in quality to those from the best British universities, and at a cost to the nation and the student far below standard forms of instruction.

On its success ride the hopes of many: those who would make a university degree much more widely available to adults for whom it has been an impossible dream; those cost-conscious public officials looking for an alternative to building more expensive residential colleges; and the innovators who want to harness the potential of independent study and modern communications to the task of education. The Open University constitutes a massive attempt to test out those aspirations in a single comprehensive program. If successful, it will change the future of higher education throughout the world.

*Ernest L. Boyer and George C. Keller, "The Big Move to Non-Campus Colleges," *Saturday Review*, July 17, 1971.

THE BEGINNING

The Open University was fired in the crucible of national politics and educational reform. Harold Wilson first presented the idea as a "university of the air" in a 1963 campaign speech, picking up a phrase that encapsulated possibilities he had glimpsed during a visit to the United States. The proposal became an issue in the Labor Party's campaign to unseat Home in the 1964 general election. It was designed to appeal to intellectuals, Laborites interested in the plight of the working classes, and young voters pressing for greater British participation in the technological revolution.

The Open owes its existence to the potent blend of educational experience, keen political support, and appreciation for innovation which its planners brought to bear from the outset. After Wilson's election, it took root close to the center of national government in the Department of Education and Science (formerly the Ministry of Education, and roughly analogous to the U.S. Office of Education) rather than in the more autonomous University Grants Committee (the receiving and dispensing agent for state financial support to universities). Miss Jennie Lee, Wilson's Undersecretary of the Department of Education and Science, widow of Aneurin Bevan, and a leading figure in the Socialist Party, led the planning effort.

Miss Lee (now a life peeress, who made history when she became the first woman in the House of Lords to wear a pants suit) worked with an Advisory Committee of outstanding British educators and statesmen. The Committee proceeded on the principle that the values of a traditional university degree should not be destroyed, but rather made available to everyone seeking them. Jennie Lee's determination, tenacity, outspoken eloquence, and her close political relationship with Wilson helped the Advisory Committee to avoid debilitating compromises with entrenched

educational special interests, and to devote its full engergies to a consideration of how the idea could best be made a reality.

In a White Paper published in 1966, the Committee laid out the Open University's basic shape. It acknowledged that Great Britain had a "substantial network of educational institutions that provide higher and further education for both full-time and part-time students," but found them insufficient to the need because they were too restrictive in admissions, with classes inconveniently scheduled for adult students and unsuitable in method of presentation, or inferior in status to the best British university education. (For in spite of the fact that Britain supports a number of "non-university" institutions of higher learning, some of which are educationally equal to full-fledged universities, they do not provide the social cachet and perquisites thereof that accrue to a university degree-holder.)

The Committee argued for "an imaginative use of new teaching techniques and teacher/student relationships, an open university providing degree courses as rigorous and demanding as those in existing universities," but made available to a student body far larger and more diverse than any traditional university could accommodate.

The White Paper warned that a "make-shift project" would "defeat its whole purpose, as its status will be determined by the quality of its teaching." It therefore recommended correspondence courses "of a quality unsurpassed anywhere in the world...reinforced by residential courses and tutorials" to support presentations on radio and television. While it urged cooperation with the BBC and existing educational institutions in both the preparation and operational stages, it nevertheless stressed that "the University will best achieve its aims by firm central control of a fully integrated operation."

A Planning Committee appointed in 1967 to work out the details of the Open University (as it was now called) lost no time in acting on these

recommendations. Eager to pass the point of no return before such time as the Conservatives might resume power, the Committee took less than two years to bring the Open from an idea to reality. In the spring of 1969 it handed over to the Council and Senate of the University a sketchplan from which full blueprints were then prepared.

By January 1971 the Open was indeed a full-fledged university—with a royal charter, degree-granting powers, teaching and research arms, a complete academic and administrative staff, some 220 local study centers, and a set of first-year university courses especially designed to be disseminated to adult students via the media, correspondence study, and seminars. Headquarters were established at Walton Hall in Bletchley on a seventy-acre site about an hour out of London—near the new town of Milton Keynes midway between Oxford and Cambridge.

HOW IT WORKS

To those American educators perplexed over the all-or-nothing nature of demands for reform, the Open University appears as a refreshing and thoughtful blend of the old and the new.

Admissions

There are no formal entrance requirements. Anyone 21 or older who lives in Great Britain may enroll.

Degrees

By granting "general" degrees at the undergraduate level, the Open University has carried out the recommendation of the Planning Committee, which argued against specialized degrees: the nation's

foremost need was more integrated programs of higher earning. At the undergraduate level, then, the Open grants only the Bachelor of Arts degree, even though the majority of a student's work may be technological or scientific. This nomenclature follows that of Oxford and Cambridge. An advantage to the general designation is the students' freedom to select courses from among a broader spectrum than is usually permitted in other British universities. It has also maintained the traditional distinction between "ordinary" and "honors" degrees, awarding the latter upon completion of eight credits instead of six, some of which must be earned in more advanced courses. Although students are comparatively free to proceed by electives, the University spells out all prerequisites, and not those combinations of courses for which it will not award more than one credit.

Higher degrees–Bachelor of Philosophy, Master of Philosophy, and Doctor of Philosophy–will be given for advanced study and research to those possessing the B.A. or its "equivalent." Further definition of the term "equivalent" allows the Open University another opportunity to affect and liberalize established practices, should it so desire.

To earn a higher degree, a student must amass "research" in addition to class credits: three out of the total of six required for a master's degree, and six out of the nine for a PhD. The University defines a research credit as standing for the completion of three months' full-time active research, or its equivalent.

The Open has set up facilities as its central campus for a limited number of full-time resident higher-degree students. They will be supervised directly by a regular member of the academic staff there, on whose recommendation research credits will be awarded. However, University officials anticipate a larger enrollment of part-time external students, who will be able to fit advanced study and research in to their schedules without having to leave their home or place of work. An external student

must demonstrate access to the proper research facilities; thereafter with the approval of the Faculty Senate the University will assign him to a full-time staff member and to a local supervisor appropriately qualified in the field and knowledgeable about research methods.

Research credits for external students will be awarded on the recommendation of the internal supervisor in consultation with his external counterpart.

Through this two-track scheme, the Open hopes to extend the advantages of its undergraduate system to the graduate level without destroying the validity of its higher degrees. It remains to be seen whether this attempt to avoid the traditional "closing in" for graduate studies will prove successful.

The 1972 *Prospectus* indicates that the University will also award higher doctorates (Doctor of Letters and Doctor of Science) to graduates of the Open or to members of the full-time academic staff; and the honorary degree, Doctor of the University, to persons of distinction from the outside. Reserved for the future is the right to award "diplomas in special topics to cover the needs of those requiring further educational courses after experience in industry, commerce, or the professions." Presumably, such diplomas may be granted when and if the Open offers refresher or retraining courses for persons displaced by technological or other change. Programs for this purpose have been mentioned in early planning, but will now await their turn at development. First efforts are focused on the undergraduate degree.

Governance

As in other independent and autonomous British universities, the Open vests its executive authority in a Council (corresponding to an American university's Board of Trustees) and a Faculty Senate, but the composition

of these bodies has been diversified to reflect the Open University's special purposes.

The Council's members were selected as follows:

5 Open University Officers (Chancellor, Pro-Chancellor, Vice-Chancellor, Treasurer, Secretary)
1 Chairman of the Open University Academic Advisory Committee
4 Appointed by Her Majesty's Privy Council
3 Appointed by the Committee of Vice-Chancellors and Principals of the U.K.*
3 Representatives of local Education Authorities
1 Representative of Education Authorities in Scotland
1 Appointed by the Royal Society
1 Appointed by the BBC
6 Appointed by the Open University Faculty Senate
8 Selected from among outstanding national figures representative of no single institution
4 Appointed by the Open University General Assembly

This composition insures appropriate representation at the highest level of all concerned groups. The inclusion of a wide range of national educational interests provides the public a determining role in University policy. Also, Open University faculty make up a much larger proportion of the membership than is customary in American universities. Students and local staff members appointed from the General Assembly join with other Council members in making decisions affecting their studies and work.

*An association of the heads of universities.

The General Assembly draws three students and five local staff members from each of twelve Regional Assemblies. The University's Royal Charter called for these assemblies to provide feedback from students and staff throughout the country in terms appropriate to a non-campus operation. Each student automatically becomes a member of his Regional Assembly. This organization provides a forum for discussion and association among students and staff that offsets the feeling of isolation that can discourage students engaged in independent study.

The University Senate is similar in purpose to American faculty senates, but again its membership is wider. It includes not only full-time faculty members, but also the educational technologists and other specialists whose media expertise is central to the Open's operations. The Senate is responsible for academic programs, although in the words of the *Prospectus,* "as in all new universities, academic decisions relating to the maintenance of academic standards are also the concern of the Academic Advisory Committee, [with a five-year provisional life] which is appointed by the Privy Council." This qualifying clause will not be unfamiliar to the American college president caught in that gray area of academic policy-making between a faculty senate's power and the board of trustees' responsibility for the general welfare of the institution.

Organization and staff

The Open University's organization, while containing elements of the traditional, represents an essentially new combination of educational and technological resources. Its academic arm is organized in six faculties–arts, educational studies, mathematics, science, social sciences, and technology–each with a dean and a full complement of professors, lecturers, staff tutors, and research assistants, whose salaries are equal to what they would earn in an established university. As is usual in England,

all academic staff are appointed with tenure. Historians of academic custom may be interested to note that although the original idea was to have neither differential titles nor departmental lines, the faculty in early sessions did adopt standard job titles, while establishing the broader divisional lines.

Dr. Walter Perry, the Vice-Chancellor ("President" in American terminology) was formerly Vice-Principal at Edinburgh University and head of the British Medical Research Council's Department of Biological Standards. His credentials in both research and administration helped to reassure those who feared low academic standards at the Open, and to attract a well-qualified and large teaching faculty and staff in an amazingly short period of time. There are presently 200 full-time and over 3,000 part-time faculty. The majority of the deans began work less than two years before the University opened.

The Open's reliance on new media for instruction, especially radio and TV, is reflected by the central position of radio and television production experts and educational technologists. They work closely with subject-matter specialists to develop new formats and approaches whereby instruction from the academicians reaches the student in ways appropriate to the particular medium and not merely as watered-down classroom lectures committed to pictures and tape. Young people from the educational world who were interested in innovation were recruited and given a crash course by the BBC in the technical aspects of the media. The belief was that a "hardened" producer would not have the imaginative approach of the uninitiated.

Curriculum development takes place on the central Walton Hall campus at Bletchley, which also houses facilities for faculty and advanced student research, administration, and planning offices. It is the nerve center of the vast communications network through which information is disseminated, received, and recorded—a network deliberately planned to combine,

insofar as it is possible, the efficiency of automation and the reassurance of personal contact.

Correspondence services are massive. Officials estimate a daily influx and outflow of 1,500 pieces of mail for each 10,000 students. Services include mailing out correspondence packages; receiving assignments; dispatching them to the appropriate *correspondence tutor* (who is not usually at Bletchley) or to the computer for grading; noting grades on student computer records; and returning papers to students.

Student registry responds to questions of admissions, registration, payment of fees, and interpretation of regulations. Although most questions of this nature are answered through the mails or in local study centers, the Open has set aside certain hours for personal consultation by telephone. Students are given the number on the radio and are encouraged to call any weekday evening with questions, academic or otherwise.

Television and VHF radio programs are produced and transmitted from BBC facilities. Eventually the Open plans to construct studios of its own at Walton Hall.

Next in the chain of command from headquarters is the *regional director* in each of twelve regions, who maintains liaison with the academic resources of his area (such as the public library and local educational authorities), and sets up and supervises local support services called *study centers.* These centers are often only a few sparsely furnished rooms leased by the Open from an educational institution for use primarily in the evening hours.

Every local study center has equipment to receive and play back radio and television broadcasts for students who missed a program, who do not have radio and television at home, or who live where reception is poor. In the larger centers computer terminals are on hand (with time rented at a reduced rate during the evening) for students in the mathematics course. Here at the grass roots students gather to talk with each other and create

the spirit of old OU. As the author of one recent article noted, having signed up to work alone, they now seem to want to be together.* Membership in regional assemblies is not enough, they want a student union, more pleasant surroundings in the study center –and university ties and blazers!

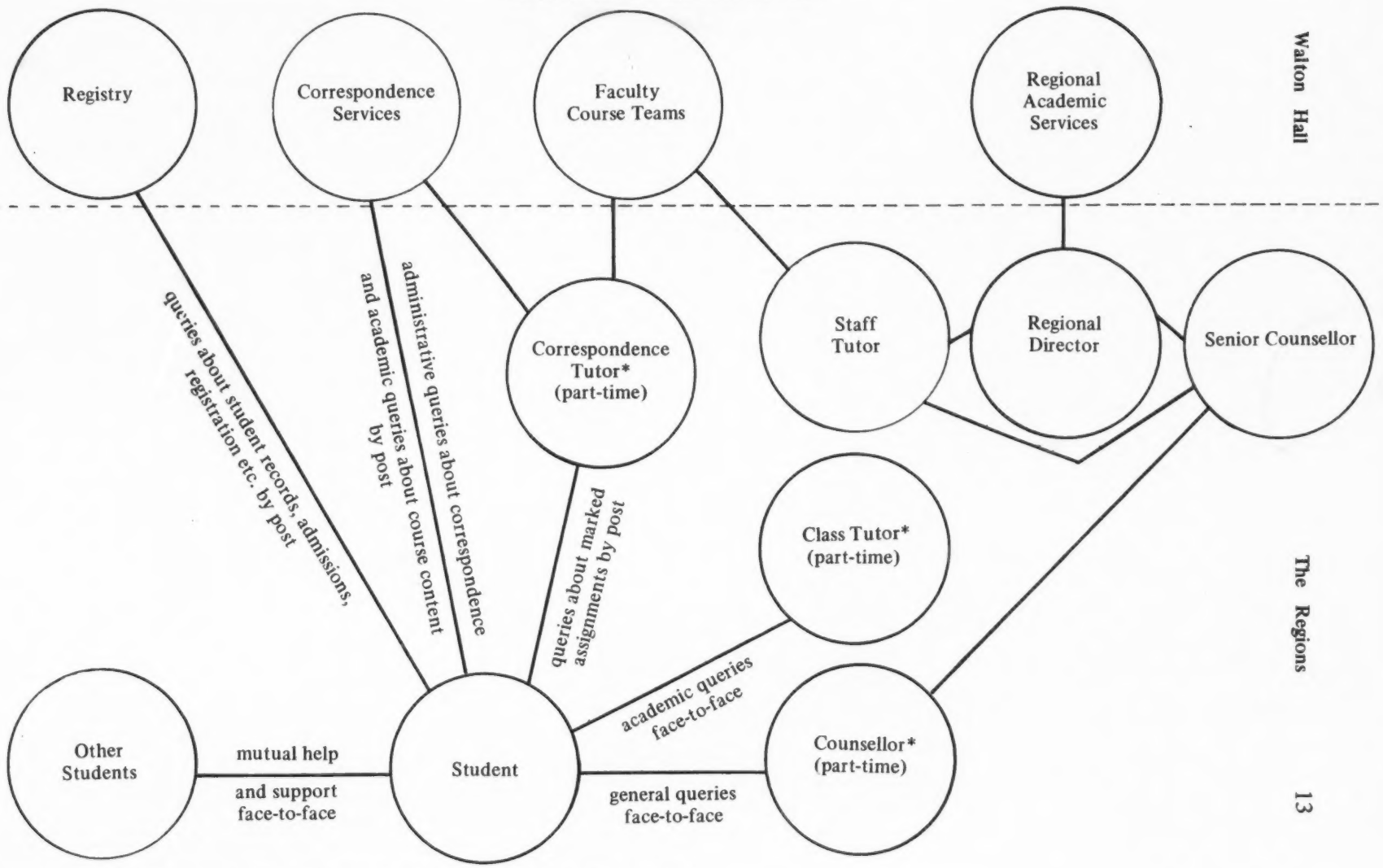
The local centers appear to have really caught on. *Counsellors* meet with students to advise them on their progress and study plans. *Class tutors,* locally hired subject-matter specialists, who often teach in nearby colleges as well, conduct seminars fortnightly in the sciences and mathematics and monthly in the other areas. Their task is to amplify material presented on radio, TV, and in correspondence texts.

Although the Open has taken pains to make sure that students receive all the information they need through these other means, the study centers have proved to be very popular, especially for those who want the psychological support of other students and "live" teachers. To this end, the Open also broadcasts monthly Open Forum programs on radio and TV; these are representative groups of students and staff discussing–often with visiting experts–issues raised in the courses and in the operation of the University.

The University represents the total communications system schematically in its *Study Guide,* as shown on page 13. *(Note on part-time local staff:* Because students are turning to class counsellors with questions on correspondence work more frequently than was expected, there is now some discussion of redefining functions of the part-time local staff. Course tutors will be responsible for all correspondence work, and will also meet with students face to face at the study centers. Class counsellors will assume some tutorial duties in addition to their counselling role.)

*Marghanita Laski, "Hey Jude, Or the Open University," *The Listener,* May 6, 1971.

STUDENT COMMUNICATIONS



*For redefinition of functions of part-time staff, refer to note on the previous page.

Grading

The Open University follows the British custom in requiring its students to sit for a final examination at the end of each course, held in designated centers throughout the country. To this are added a series of additional interim assessments: correspondence assignments marked by tutors, objective tests marked by computer, and evaluations of summer-session work. Students also take self-graded tests which, together with the externally marked exams, give them some idea of their progress. To allow for student improvement, greater weight is given to later marks, and as the *Study Guide* notes, "least worthy performances will be automatically disregarded for assessment purposes." In essence, the grades are weighted toward achievement.

The central computer keeps a running account of how a student is doing. This information is available to him upon request, for a fee which varies depending on when he requests it, to discourage students from overloading the computer during peak periods. In November, when the computer is processing examination results, this service is cut off completely.

To establish standards for grading, the central correspondence staff periodically monitors tutorial evaluations. If a particular tutor is seen to be marking too high or too low (grades are numerical, ranging from 6 to 1), the computer so notes on the student's record. The tutor's work is then reviewed by the staff, who may alter and reweight the mark accordingly.

All interim and final assessments are reported to an examination board, which includes one or more external examiners of high academic repute. The examination board recommends to the Faculty Senate those students to be awarded credits, including credits with distinction.

METHODS AND MATERIALS

Foundation, second, third, and fourth-level courses are planned in six lines of study—arts, educational studies (for which it was decided not to have a foundation course), mathematics, science, social sciences, and technology (in which a foundation course will be offered for the first time in 1972). Second-level course preparation is well ahead of schedule for 1972; more advanced courses are still on the drawing board.

On the *foundation courses* devolves the major responsibility for translating into academic terms the Open University's egalitarian aspirations. To be successful, they must appeal to a broad range of adult students whose study habits and life styles differ sharply from traditional students; provide a breadth and depth of coverage sufficient to merit consideration as high-quality university courses; permit students to demonstrate their ability to solve problems, think logically, grasp and express abstract ideas; and bring them to a common minimum level of understanding at the end of the first year from which second-level work can proceed.

In other words, foundation courses must be far more educationally productive than anything yet put together at traditional universities.

Each course consists of thirty-six units of work presented weekly via radio, TV, correspondence, and an extra one-week resident summer session. Programs are broadcast in the early evenings to correspond to the hours of the local study centers, and are repeated on weekend mornings. Broadcasts relate in some way to the correspondence unit for that week, or present open-forum discussions on current issues within a particular course's field. (Three one-week broadcasting breaks are scheduled during the course to allow the students time for vacations and catching up.)

The Open decided for academic reasons that the life of course materials shall not exceed four years. During this time it will allow limited revision based on feedback from students, although for financial reasons it hopes that such revision will be minimal.

Cost of the correspondence texts to OU students is covered in the tuition fee; in addition, they are for sale in bookstores to anyone who wishes to buy them. The Open has also arranged special paperback editions with its blue and gold insignia of many of the additional recommended course readings; these are on sale at reduced prices (often below the standard edition) to both OU students and the general public.

Although it is too early to assess commercial appeal of the course texts, or the effect on future enrollment of their widespread availability, other universities in Great Britain have already expressed some interest in the courses for their own use.

A *Study Guide* goes to all students, explaining rules and procedures and advising on how to get the most out of independent study, how to take notes, read faster, write essays, and deal with examinations. It offers tips on learning from television, radio, and discussion groups. Television and radio commentaries are also sent to each student outlining the material to be broadcast and serving as prepared notes for later review. These are supplemented by further guidance during the programs themselves.

The *Study Guide* includes photographs and brief biographies of many of the course authors. This is part of a deliberate effort to personalize both materials and media presentations. Texts in certain areas carry the first person, the "I" of the author whose name and face become increasingly familiar on radio and TV. Adopting the open-collar, no-jacket pose, some professors are now being chided as "matey," overdoing the informality.

Critics look for the "hard, acid, impatient teacher with the scourge, remembered when the emollients are forgotten."* The words of the professional critic may not reflect the students' reactions. They may like "knowing" the teacher; this could be encouraging their desire for association with others in the local centers. The learners have yet to make their own feelings on this question explicit.

FOUNDATION COURSES

To develop four foundation courses (in mathematics, science, social sciences, and the humanities) the Open assembled four teams of its faculty and educational technologists, and BBC producers. Procedures differed according to the discipline: some teams worked together, while others broke up into small groups to prepare separate sections of the course.

Drafts of the correspondence material were tried out on pilot groups of early enrollees, after which the radio and television programs were produced. It is interesting that in retrospect course developers feel radio and TV should have received greater emphasis at the outset, that too frequently in course development the word preceded the picture and limited the potential contribution of the nonprint media.

Mathematics

Of the four foundation courses, mathematics by its very nature has the odds going for it in both development and presentation. The logical sequence of mathematical concepts provides a natural organization from simple to complex. Furthermore, mathematics was not challenged by

*Marghanita Laski, "Hey Jude, or the Open University".

multidisciplinary demands which faced the other three courses. And the material to be taught lent itself naturally to the media: TV offers a blackboard par excellence, and the chance for animation.

TV programs motivate interest, translate difficult concepts into visual terms, and reinforce those ideas best expressed verbally. Radio programs trace historical developments, discuss specific problems, and elaborate on problem-solving exercises in the texts. On one radio program early in the course, the professor used weather forecasting to show a specific application of mathematics.

A television broadcast started with an excerpt from a Beethoven symphony, played first by the full orchestra and then on the piano to identify the musical theme as a basic, pure, primitive mathematical statement. The program moved on to the concept of logic with integers–commutative vs. non-commutative–finally translated to logic with words. An amusing example showed that vodka and tomato juice, regardless of the order in which they were added, combined to produce the same new thing–a Bloody Mary.

The performance was professional, rapidly paced with alternating lecturers, and supported by well-designed animated material. Information was tightly packed, and included a brief but lucid explanation of how to use the slide rule. The program concluded with a come-on: in subsequent weeks there would be demonstrations on the use of the computer terminals at the study centers.

Science

The team of chemists, biologists, and physicists chose the concept of force as their unifying theme. They relied even more heavily than mathematics on the visual aid given by TV. In fact, OU advises students not to take the science course without access to a television set at home or

at a nearby center.

Radio is used very flexibly. From amplification of printed material and clarification of difficult passages, it changes to point out relationships between the sciences, and then presents experts on the broader implications of a scientific principle. Experts also talk on the most recent scientific discoveries in an effort to keep the course as up-to-date as newspapers.

During the mail strike, when correspondence packages could not go out as scheduled, radio time which had been set aside for just such a contingency proved invaluable. On one broadcast, students received instructions on how to get along with materials from other students or from their local tutors, with the warning not to use another student's computer-coded assignment form for their own work. Class tutors were given specific directions to work around missing assignments.

TV is vital and lively. A program on conservation of momentum and the velocity of light started with a remark that this conservation was not to be confused with ecological preservation. Suddenly, a pellet was shot from an air gun to illustrate the principle of velocity, and the problem was introduced. Measurement by a photocell was lucidly explained, and finally two bodies of differing mass were shown in collision. The concept was given as a mathematical problem, supplementary to the text, for students to solve. A second writing of the problem gave them another chance to check their figures before they tried to do it.

Central to the science course is a home laboratory, for which students pay a refundable deposit of $25. The kit includes a stopwatch, microscope, and a colormeter for testing the color of liquids. During the unit on air pollution, the students use their kits to analyze the quality of the air outside their own homes, thus amassing some valuable nationwide data. The course team regards this kit, valued at $200, as a major

innovation, claiming that OU science students will have more equipment under their personal control than would be possible in a regular university.

Social Sciences

"Understanding Society," the social science foundation course has had more troubles – as might be expected – in trying to unify economics, politics, sociology, psychology, and geography in a comprehensive study of why and how man lives in society. Correspondence texts are designed for factual background; radio and TV enlarge upon this material and relate it to present-day problems. Radio has been effective in explaining methodology for social science inquiry. One program centered on theory with the hypothesis as a base; the next dealt with quantitative measurement based on data collection.

Critics have been harder on TV shows in the social sciences. Admittedly, it is more difficult to discuss man's economic cooperation than it is to present the factual material of science, but still the programs face the accusation of oversimplication, slow pacing, and poor planning. It seemed to some, for example, that it took the "Browns" and the "Greens," two families both producing shoes and cloth, a long time to learn that each family should specialize. Terms of exchange and productivity ratios were introduced, but the time allotted in the lesson seemed excessive to show that we pay for economic cooperation through dependence upon others.

Humanities

The humanities or, as it is sometimes called, the arts course, brings together the arbitrarily separate fields of philosophy, history, literature, music, art history, and religion in a single course on man and his cultural achievements. Faculty representatives of these disciplines were agreed on this comprehensive approach, but not without heated discussion and the

assurance that each would have his day in higher level courses. The question of whether or not to include a non-western culture for comparative purposes was resolved favorably, and a section on the Yorubas of Nigeria (where the humanities dean had had extensive experience) was scheduled.

The total course is organized in eighteen two-week blocks of work. It begins with a discussion of terms – civilization, culture, arts, humanities – and an exploration of the relationships between technological development, social structure, and intellectual and cultural achievement. Following the first month, twelve weeks are devoted to the methodologies of history, literature, art and music, which are united in the last two weeks by the analysis of critical thought in such arts.

With this background students then work on specific case studies of key people, works, or periods in time: Socrates, *The Gospel According to St. Mark,* Vasari's *Lives of the Painters, Hamlet,* Descartes, and Mendelssohn's rediscovery of Bach. The final weeks are devoted to a study of industrialization and culture in Great Britain until the end of the nineteenth century. Throughout the course, humanities students receive a systematic introduction to logic in order to down-play the temptation to over-generalize that goes along with such broad coverage.

Broadcasts in the humanities course, although integral to music and the arts (albeit limited because Open TV is not in color), are not so central to student understanding as in the science course. Nevertheless, the media are used to good advantage. An early radio program on the Yoruba culture staged scenes from contemporary drama that depicted modern values challenging traditional life styles.

To achieve high standards on TV, the course team has produced some films of its own, including one on D.H. Lawrence and one on Thomas Jefferson (for which, in spite of a tight budget, they sent a film crew to Monticello).

In developing these courses to be beamed all over the country, and with the additional knowledge that their instruction is to be "packaged" for use in other parts of the world, foundation faculty have put themselves on the line. They stand exposed in the fishbowl of the media to widespread criticism in a way that classroom teachers never are. This criticism begins when the faculty team first meets. In one instance, a dean was asked to re-write his material after other team members judged it superficial. Faculty members recognize that what they have done is not perfect, but their commitment to the venture overrides their fear of criticism—a rare attitude in academe.

Thus far the political rapier has not harmed the Open except to reduce funding, which seems normal these days, nor has the British educational establishment entered broadsides against it. Individual critics, however, are beginning to be heard. But their criticisms of the programs seem primarily to reflect the nature of the subject matter itself and the problems of multi-disciplinary work in general, although some fail to realize the fact. Thus the math and science courses receive praise for teaching something "hard and solid," while humanities and social sciences—operating within more subjective areas and more dependent upon human judgment—strike some viewers and listeners as over-tidy summaries of considerably more complicated ideas.

FINANCES

Originators of the Open University claimed from the outset that their plan would be less expensive to the nation and to each individual student than traditional university education. This claim became more important when the cost-conscious Conservative government took power. Although

predicted economies cannot be completely achieved until the Open reaches its anticipated full strength of 40,000 students in 1973, experience so far tends to bear out original projections.

Costs to the student

The student will be able to earn a degree for less than one-third of what it would cost him in an established university. Exact figures will vary according to how he spaces out his study and the credit granted for his previous education. Teachers with certificates from training or education colleges but without a university degree, for example, have been promised exemption from three of the six credits required for an ordinary B.A. It is estimated that most students will require from three to six years for an ordinary B.A., but nothing prevents them from taking more time if work schedules and financial situations demand it.

For students with no exemptions, the likely tuition for an ordinary B.A. will run about $430 over a six-year period. This includes a $24 registration fee, $108 for each of two foundation courses*, and $48 each for four upper-level courses. Even with about $150 more for additional course books, this cost compares favorably with basic tuition from $700 to $1,000 for three years at a resident university—which books, room and board raise to almost $3,000. Little wonder that the national government has asked the Open's Vice-Chancellor to explore possibilities with other British universities for adapting this approach to their needs.

*Includes room and board at the one-week summer session. Students are also given a reduction if they take two foundation courses simultaneously.

Costs to the nation

When operations commenced in January 1971, the Open had spent about half of the $14.9 million budgeted for development through completion in 1973. This cost is far below estimates of $36 to $48 million to establish an ordinary British university of only 5,000 students.*

Annual operating costs are estimated at $15.8 million for the first year: $9.3 million in recurring costs (for full-time staff at Walton Hall and the regional headquarters, and a healthy $3.6 million slice for the BBC), and $6.5 million in direct student expenses (correspondence texts, part-time tutors, local study centers, summer schools, and examinations). With an enrollment of 25,000, this comes to about $632 per student, far below the $2,000 to $2,400 per student cost at many new British universities.**

Under the present three-year agreement subject to renewal in 1973, the government will pay $13.9 million for operating costs this year. Student fees are expected to yield an additional $1.9 million to meet the $15.8 million operating budget. Although the government responded to the Open's 1970 request for more funds to handle inflation, there is little leeway to increase expenditures, unless the Open can produce the income to cover them, as for example from the outside sale of its instructional materials.

It has, in fact, appointed a marketing director with previous experience in a leading publishing company to generate sales of complete course packages to other higher-education institutions. One of the first takers was a Nigerian technological university which purchased $24,000 worth of

**British Record,* No. 7, June 21, 1971.
***Sunday Times,* January 3, 1971.

science material for its students: 50 home laboratories, 36 spools of film and tape, and 100 copies of the correspondence texts. The Open also plans to sell consultancy services to other nations interested in setting up similar institutions.

Before development funds were curtailed, the Open had planned to prepare three refresher courses—one on reading concepts for teachers, and two others on computer science and management for businessmen. Even if priced at an unsubsidized level of about $650, an 18-week management course would still cost a student far less than the $1,800 to $2,300 charged by similar courses now on the market. The initial $290,000 estimated development cost for each course has temporarily sidelined these plans, but they could in the future help substantially to defray costs for academic programs.

STUDENT BODY

Even with a reduced budget for publicity, the Open University had no trouble attracting over 43,000 applicants for the 25,000 available places in January 1971. Since there were no educational requirements, a computer was used to screen applicants on the basis of geographical and course distribution—first come, first served. Of the 25,000 beginning students, about 5,000 signed up for two courses; many of them soon found the double load too demanding and dropped one course.

Drop-outs for the first five months of operations have been fewer than expected. University officials feel encouraged by the 25% drop-out rate tabulated through the end of May. Predictably, the largest losses occurred in mathematics and science.*

*Mathematics 31.8%, science 25.2%, social sciences 22.1%, humanities 19.3%.

An occupational breakdown of the first class reveals a lower proportion of manual workers than had originally been hoped for. Teachers, who receive salary increments for OU credits, constitute about one-third of the total, followed in size by a 10% enrollment of people in professions and the arts. Next, at slightly under 10% each, come groups of housewives, clerical employees, technicians, and scientists and engineers. Workers (mostly from electrical, metal, manufacturing and related industries) make up just under 4%.

OU officials remain unperturbed by this configuration. claiming that they have already enrolled more workers than are now studying for degrees in all other British universities combined. They also point to the small budget that prevented any ambitious publicity plan, forcing them to rely almost exclusively on a general announcement and a brochure mailed to selected trade unions and industries. In the final analysis, they believe the TV and radio programs may do the most to dispel the British worker's ingrained and self-defeating belief that university education is a secret rite carried on in residence behind ivied walls for those above his class and station. With that myth laid to rest, worker participation could rise dramatically.

In the meantime, the large proportion of enrolled teachers has fueled the criticism that the Open is not accomplishing its original purpose, i.e., a university for the adult working classes. Nevertheless, by its very existence the University has added a new dimension to the future of all British post-secondary education. If it can demonstrate an economic delivery of quality higher education to adults of whatever background, its potential for future growth and its influence on other institutions seem almost limitless.

Within the Open University itself, future student enrollments will play a large part in determining what direction it takes. The number of applications for the second round of foundation courses to get underway

in January of 1972 is encouraging: by the cutoff date of July 13, over 35,000 had been received for the 20,000 available places. Teachers continue to make up the largest, although decreasing, proportion of students. University officials are encouraged by the sharp rise in applications from skilled manual workers to 18.5% of the total, and by the increase in applications from housewives and shopkeepers.

Time will reveal whether the bulk of the student body will be composed of that large but diminishing backlog of adults born too soon to take advantage of the last thirty years' liberalization of British elementary and secondary education—or if a renewing group of younger adults who leave school but later wish to return will enroll in large numbers.

Thanks to the extensive array of degree programs set down in its charter, the Open can adjust its focus in later years in response to shifting student demand, and to developments in other sectors of higher education. For instance, once it has established a reputation as a university of high quality, its planned nonresidential refresher programs may prove attractive to those men and women in mid-career who need to shift or up-grade job abilities, but for whom existing programs are either loaded down with residence requirements or very expensive.

THE OPEN IN THE BRITISH SYSTEM

Outside the Open, the shock waves are beginning to be felt. By enrolling 25,000 students, the Open University in one step increased by half the total number of students accepted in Britain's other 46 universities this year. Already the government, concerned over an anticipated doubling in demand for university education in the next ten years, is thinking about how OU methods and policies could alleviate future costs.

A number of unanswered questions are reverberating in government

corridors and academic committee rooms these days. If OU instructional innovations pan out with adult students, might they not also work with those under 21? If removing rigid entrance requirements and granting credit for a variety of previous educational experiences do not lower overall educational quality, can other universities continue to justify present practices, especially in view of high per-student expenditures?

In other words, the Open University not only grows out of, but also gives a further push to the rethinking of Britain's system of higher education since the second World War. Its presence adds one more option to existing institutions and to those that were established in response to the seminal 1963 Robbins Report.

The Robbins Committee, a prestigious national group, pronounced unworkable the British system of small, elite universities paralleled by a lesser structure of specialized professional and technological institutes. It called for an expansion of higher-education opportunities for a much larger and more diverse student body. For the first time in Great Britain, it included in the definition of higher education technological and managerial post-secondary education, as well as teachers' colleges and colleges of further education. It urged that the further growth and development of these "lesser" institutions should proceed as much as possible according to the same high standards set by universities, but not necessarily in the same mold.

In response to the Robbins Report, Great Britain established the *Council for National Academic Awards* in 1964. The CNAA is both an accrediting and degree-granting agency that nurtures the growth of non-university institutes of higher learning into alternatives to a university education—completely equal in quality and status, although with programs of study not generally available at universities.

The Council's accrediting policies encourage the same spirit of innovation at resident colleges that characterizes the Open University. In these

institutions are found work-study programs and the combination of specialized technical and business courses with liberal studies that Americans consider part of a university. Colleges are free to design their own syllabi and curricula, and to admit and examine students. After a careful review, the CNAA accredits course programs in a college, and upon a student's completion of satisfactory work, it awards a degree under its own name and crest, along with the name of the college and, if appropriate, the firm where the student carried out his work-study program.

The idea has caught on rapidly. Over 23,000 students are now enrolled in some 300 CNAA approved courses, most in the new polytechnics. Although 229 of the courses are in science and technology, many are in arts and social studies, and student demand for the latter seems to be pushing these institutions away from their original purposes into a greater emphasis on more liberal studies. There has been a corresponding decline in more vocationally oriented work-study programs. It is possible that the Open University can relieve pressure on the polytechnics and other colleges under the CNAA's purview to offer more courses of study in the social sciences and liberal arts, leaving them to concentrate in those areas of more part-time job-oriented technical programs in which residential facilities play an important part.

The *University of London External Degree Program,* until recently the only way in which a student not in a university could earn a university degree, is looking to both the CNAA and the Open University to siphon off future student applications, thus relieving the pressures brought by its 35,000 students, whose very numbers threaten the collapse of the London program. It started out in 1858 as an examination service whereby external students could sit for the same examinations given internal students and upon successful completion receive the University of London degree. Over the years it became the sole avenue to a university degree for

those students enrolled in non-university institutes of higher learning.

As these institutions grew, so did pressures on the University of London. Referring to the increased number of students, a recent report* states, "This strain has become intense .... The value of the degree to an External Student stands or falls by its reflection of achievement equivalent to that of Internal Students. It thus depends to a very great extent on the ability and willingness of those who teach and examine Internal Students to accept responsibility for the examination of External Students. In some examinations External candidates outnumber Internal by as many as seven or eight to one, although the numbers of academic staff are related to the needs of Internal Students and no special provision is made for this additional work."

.With the advent of the Open, and the provision for university degrees in some 300 CNAA approved courses, most in the new polytechnics. limit the number of external degree students to perhaps 10,000, and to concentrate in more specialized fields – including, for example, foreign languages, which the Open does not plan to offer.

The Open University could also influence the future development of adult education opportunities standing at the periphery of higher education – colleges of further education, correspondence colleges, university extension classes, the union-supported Workers Education Association, and the training programs funded by industry under the Industrial Training Act of 1964. With a degree-granting structure extending into every part of the country, the Open could serve as the vehicle for drawing these separate efforts into a coordinated nationwide system of adult higher education.

There is a lot of discussion at the moment over whether the Open

*"The Future of the External System", prepared by the University of London, September 1970.

University represents a first chance, second chance, or last chance at a university education. A final resolution must await future developments. Certainly the Open has pushed ahead experimentation with new forms of instruction on a scale never before attempted and, by shifting the decision of who should be educated from the institution to the student, has challenged the foundations of academia. Only some hard-headed assessments over a period of time will reveal whether or not the University has achieved its goals. In the long run, however, its greatest service may be to encourage an expanded national alliance of educational resources in a coordinated and comprehensive system of higher education for all who seek it. The magnitude of Wilson's dream, far from defeating his object, as some critics have claimed, may become the major means for its accomplishment.

Academy offices:

437 Madison Avenue
New York, New York 10022

1424 Sixteenth St., N.W.
Washington, D.C. 20036

770 Welch Road
Palo Alto, California 94304

Directors of the Academy

SAMUEL M. BROWNELL *Chairman*
Professor of Urban Educational Administration,
Yale University Graduate School

ALVIN C. EURICH *President*

SIDNEY G. TICKTON *Executive Vice President and Treasurer*

JOSEPH ISEMAN *Secretary*
Partner, Paul, Weiss, Goldberg, Rifkind, Wharton & Garrison (Attorneys at Law, New York City)

ROBERT O. ANDERSON
Chairman of the Board and Chief Executive Officer, Atlantic Richfield Company

FAIRFAX M. CONE
Founder and Director, Foote, Cone & Belding; formerly Chairman, Board of Trustees, University of Chicago

GILBERT GRANET
Formerly President, FAS International, Inc.

ROBERT V. HANSBERGER
President, Boise Cascade Corporation

THEODORE W. KHEEL
Partner, Battle, Fowler, Stokes & Kheel (Attorneys at Law, New York City)

LOUIS B. LUNDBORG
Formerly Chairman of the Board, Bank of America; Board of Directors, Stanford Research Institute

FRED LUDEKENS
Commercial Designer

HERBERT R. MAYES
Director and Consultant, McCall Corporation; Director, *Saturday Review;* formerly President, McCall Corporation

JAMES A. McCAIN
President, Kansas State University

NEWTON N. MINOW
Senior Partner, Liebman, Williams, Bennett, Baird & Minow (Attorneys at Law, Chicago)

JAMES O'BRIEN
Vice President and Director, Standard Oil Company of California